

COPENHAGEN SUSTAINABILITY CHALLENGE

TOOLBOX

This material contains a detailed program with an overview of what is happening at what time during the challenge. It also contains links to specific tools that you can use during the process.

You should not read through the entire toolbox at once. Rather, it will serve you best if you dig into the place in the program you are currently at – and explore the relevant tools for this specific part. Of course, using the tools are optional – you are welcome to use other tools instead.

[The tools are from UCPH Innovation Toolbox](#)

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Practical information

If your team gets stuck, if you have questions or need help in any way, please reach out to one of the Copenhagen Sustainability Challenge team: Sarah, Thibault, Dan or Ellen. We are around during the entire challenge and happy to assist.

It will be 3 intensive days, so remember to be a good teammate. Balance your expectations, give everyone room to speak, and please motivate each other.

Prizes

There will be two winning teams – one for each case. Each participant on the winning teams will receive a one-day ticket to Roskilde Festival 2022.

All participants will receive a certificate of participation after the final presentations on Sunday.

Program

| Time | Program – Day 1 |
|-------|--|
| 14.00 | Copenhagen Sustainability Challenge is open Registration, Coffee |
| 14.30 | Introduction by Actory Official welcome speech by: Bente Merete Stallknecht, Prorector for Education, University of Copenhagen Kick-off speech: Lisa Hvejsel, Art director Worldperfect |
| 15.20 | Meeting with your team Team introduction and icebreaker (page 6) |
| 15.50 | Break |
| 16.00 | Presentation: Sif Rantzau Klemp, Team Waste Management, Roskilde Festival. |
| 16.30 | Cases are revealed. Read the case Use the tool: Understanding the problem (page 7) |
| 17.15 | Break |
| 17.30 | Working in teams: Idea generation Use the tool: Classic Brainstorm (page 8) |
| 18.30 | Vegan dinner from Ishtar |
| 19.30 | Working in teams: Feedback on ideas from Actory Choose your mentors: Read more about the mentors and how to prepare for their visit in the mentor sheet (page 10-13) Idea selection Use the tool for Idea selection (page 9) Remember to take a break, when you need to do so |
| 21.30 | Send your idea and wishes for mentors to info@actory.dk |

| Time | Program – Day 2 |
|-------------|--|
| 9.30 | Breakfast |
| 10.00 | Presentation of mentors |
| 10.15 | Working in teams and feedback from mentors, read more in the mentor sheet (page 10-13) |
| 11.50 | Lunchbreak & Networking with mentors over lunch |
| 12.45 | Working in teams, Using feedback from mentors |
| 13.30 | <p>Presentation: How to pitch your idea? Anne Sørensen, Innovation Consultant and head of Human & Legal Innovation Hub, UCPH.</p> <p>Find practical information about your presentation on page 16-17</p> |
| 14.00 | Break, Coffee & cake |
| 14.15 | Working in teams: Concept development & realization (page 14) |
| 15.30 | <p>Test your idea on former Roskilde Festival participants. Meet Maria and Mathilde 2 former Roskilde Festival participants, who will give you feedback on how your idea will apply to a test audience.</p> <p>Find more info on page 15</p> |
| 16.30 | <p>Working in teams:</p> <p>Concept development & realization</p> |
| 17.15 | Break |
| 17.30 | <p>Working in teams, Getting ready for the presentation</p> <p>Find more practicalities about the presentation in the Presentation sheet (page 16-17)</p> |
| 18.30 | Dinner |
| 19.30 | <p>Working in teams.</p> <p>Getting ready for the presentation. Let us know if you prefer to present first, in between or last. When your team has finished, you can leave for today.</p> |
| 21.00 | We close the doors for today. Send your power point to info@actory.dk |

| Time | Program – Day 3 |
|-------------|--|
| 9.30 | Breakfast |
| 10.00 | Presentations: Each team has a maximum of five minutes to present their idea The panel of judges can ask a maximum of two questions to the group |
| 12.10 | The judges are deliberating You will receive information about how you can take your idea beyond the scope of the challenge |
| 12.30 | Final Announcement of the winning teams, certificates of participation for all participants. |
| 12.45 | Lunch & networking |
| 13.15 | Event closes |

Introduction & Icebreaker 15.20-15.50

Different teams work in different speed – you do not need to finish all the following exercises. The important thing is that you take some time to get to know each other in the team.

1. Take turns presenting yourself to the group:

- What is your name?
- What do you study?
- Why are you part of this challenge?
- What are you looking forward to the most?
- What is a fun fact about yourself?
- Is there anything else the team should know about you?

2. Map the skills and competencies in your group:

Take turns answering the question:

- What is your strength(s) when working as part of a team? – each member can choose one or several strengths.

Write all strengths on the flip chart

Take turns answering the question:

- What is your biggest weakness when working as part of a team? - – each member can choose one or several weaknesses.

Write all weaknesses on the flip chart

Discuss how your different strengths and weaknesses supplement each other.

3. Play the introduction game “10 things in common”

Come up with a list of 10 things you all have in common. Don't go for things that are too obvious, such as “we all have hands”! Use the game to genuinely get to know each other a little better.

4. Talk about your motivation. Take turns on answering the questions:

- What motivates you the most? Tell a story about a situation where you felt really motivated. You can choose any given situation.
- What do you find really demotivating? Tell a story about a situation where you felt really demotivated. You can choose any given situation.
- Make a list of things in the team that motivates you and write them on a flip chart.

Tool: Understanding the problem

16.30-17.15

1. UNDERSTANDING THE CASE

Read through your case + have a look at the data in the background material

What is the problem?

2. UNDERSTANDING THE TARGET GROUP

Who are the end users?

What are your assumptions about the end users?

If you feel like it, you can create personas for your end users

PAINS AND GAINS FOR THE TARGET GROUP:

PAINS - What pains do the end users have in connection to this problem?

GAINS - What will the end users gain, if the problem is solved?

Tool: Idea generation – classic brainstorming

17.30-18.30

CLASSIC BRAINSTORM

Brainstorming is a classic idea generation technique, and it remains one of the most rapid and rewarding methods of generating lots of ideas in a group setting.

Brainstorming rules (Source: [D.school](#), Stanford University):

- Defer judgement – don't judge your own ideas or those of others
 - Go for volume – 100 are better than 10
 - One conversation at a time – focus
 - Encourage wild ideas – the crazier the better
 - Build on the ideas of others – leverage perspectives
 - Stay on topic – stick to the “how” problem
 - Be visual – communicate your ideas for teammates by sketching
-
1. Begin by jotting ideas down on post-its – and choose a time limit (5 minutes, for instance)
 2. Take turns putting your post-it on the flip-chart – or at the table. Explain to the other participants what you wrote and why.
 3. When all post-its from the first brainstorming round is on the table, you can move on by discussing the existing ideas or repeating the brainstorming session, to build on the others' ideas. You can do a 3rd or 4th brainstorming round as well, that is up to you.
 4. Start clustering the ideas, find several concrete ideas and move on to the idea selection tool.

Tool: Idea selection based on a weighted criteria

From 19.30

The method is used to select ideas or concepts based on weighted criteria. This way a dialogue is created within the group work about the development and prioritization of criteria.

Normally, the development of criteria occurs implicitly, where you might not be aware of what you and the other group members consider important for the solution. This is particularly the case in interdisciplinary collaboration. Basing the idea selection on weighted criteria helps this process along.

1. Decide on a minimum of five criteria's that the solution needs to live up to. You can use some of [the criteria's the jury use to assess your solution](#). Here, criteria should be understood as properties/qualities that the solution can fulfill to a greater or lesser degree, and not as requirements that either can be fulfilled or not.
2. Thereafter each of the criteria are weighed on a scale from 1 (least important) to 5 (most important). One of you can write in a document and share your screen.
- 3.

| | Weighting | Idea 1 | Idea 2 | Idea 3 | Idea 4 | Idea 5 |
|----------------|-----------|--------|--------|--------|--------|--------|
| Criteria 1 | | | | | | |
| Criteria 2 | | | | | | |
| Criteria 3 | | | | | | |
| Criteria 4 | | | | | | |
| Criteria 5 | | | | | | |
| Score in total | | | | | | |

4. Each idea is then given between 1-10 points on each of the criteria.
5. When all the ideas have received points, the points are then multiplied with their allocated weighting. Finally, the total, weighted score per idea is calculated.
6. At this point it is important to reflect whether the idea that has received the most points, is in fact the best idea. This can be a good basis for a discussion about rating criteria and their weighting.
7. After having selected 1-3 ideas you can continue with the development and detailing of these ideas.

Mentor sheet

- **Michel Bjørnskov Cirulli, Behavioral Designer, Municipality of Copenhagen, Technical and Environmental Administration**

In my department PARC, we focus on circular economy and has ambitious goals to reduce the amount of waste that is sent for incineration. I am a part of a team, where we break down people's behavior and design new habits. Our main goal is to get more people to sort more of their waste. We mainly focus on what happens in the kitchen and in the back yard.

I can therefore contribute with knowledge on how to find the right moment to influence behavior with the best possible solution. My experience tells me that the right solution is not always enough. Behavior change depends on a lot of other factors for example is 'when' often more important than 'what'. We therefore, need to understand how people make decisions, in the context they are in and how we design solutions to fit their reality and touch their motivation to do something else.

Looking forward to designing some good solution for waste management for Roskilde Festival, with you.

- **Sina Pour Soltani, Co-Founder og CEO, ARIS Robotics**

I have studied robotics at SDU in Odense and I am only a thesis away from being a Master in Advanced Robotics. However, I decided to take a leave of absence to pursue our startup ARIS Robotics. We have worked on the project for around two years and officially founded the company in the summer of 2021.

All of us are passionate about solving the environmental challenges of today. That's why we decided to use our competencies to tackle a big issue within sustainability, that is, how we handle our waste and resources. Specifically, we have decided to solve the problem at the lowest level in the waste hierarchy: landfill.

Right now, sorting waste depends on people's knowledge and willingness. Unfortunately, this often leads to poorly sorted fractions. Up to 60% of the waste in landfill doesn't belong and could have been recycled or used in energy production.

We want to shift the responsibility of sorting waste from humans to machines.

We have made a proof of concept trash can that sorts waste using cameras and artificial intelligence. We brought our trash can to Roskilde Festivals Summer Days, where we could gather data, test the performance, and see people interact with our solution. We gathered great insight which we used to plan our next versions.

Solving the problem of recycling is going to take a lot of ingenuity and it is important to address the issue from many different perspectives. Hopefully, together we can build a future where Earth's resources won't get wasted.

- **Nika Brunet, CEO / Promotion / Ecology, Metal Days Festival, Slovenia**

I am somewhere between project and event manager by title, with wide experience from music industry business, social sciences, marketing and communication, IT and even aeronautical science, today responsible for organisation and promotion of biggest music festivals in Slovenia: MetalDays. Vegan by heart, photographer by quest.

Passionate about ecology, sustainability, and environment, in my (not so) free time also mini-chef in our plant-based food home-cooking kitchen, with a clear vision of the future where sustainable, low carbon foot-print, zero-waste events are not fiction anymore but a reality. So if you want to meet a mentor with international experience about making other festivals more sustainable – I am the one.

- **Sif Rantzau Klemp, Projektkoordinator, Team Affaldshåndtering, Roskilde Festival**

Since 2017, I have been a regular part of Roskilde Festival's volunteer team: Team Waste Management. In Team Waste Management, we handle everything that is categorized as waste and recyclable fractions, which are generated before, during and after the festival. My specific role is project coordinator of waste plans in the camping areas. This means I organize efforts for waste management and sorting as well as various projects together with the managers of the camping areas.

- **Lina Katan, Special Consultant, Dansk Affaldsforening**

The Danish Waste Association is a politically controlled interest organization with 57 members consisting of municipalities, joint municipal waste companies and receiving stations in Denmark and the Faroe Islands. The Danish Waste Association must promote the members' interests in the waste area. The members collect and handle household waste and commercial waste from 98 municipalities for DKK 5.6 million. citizens

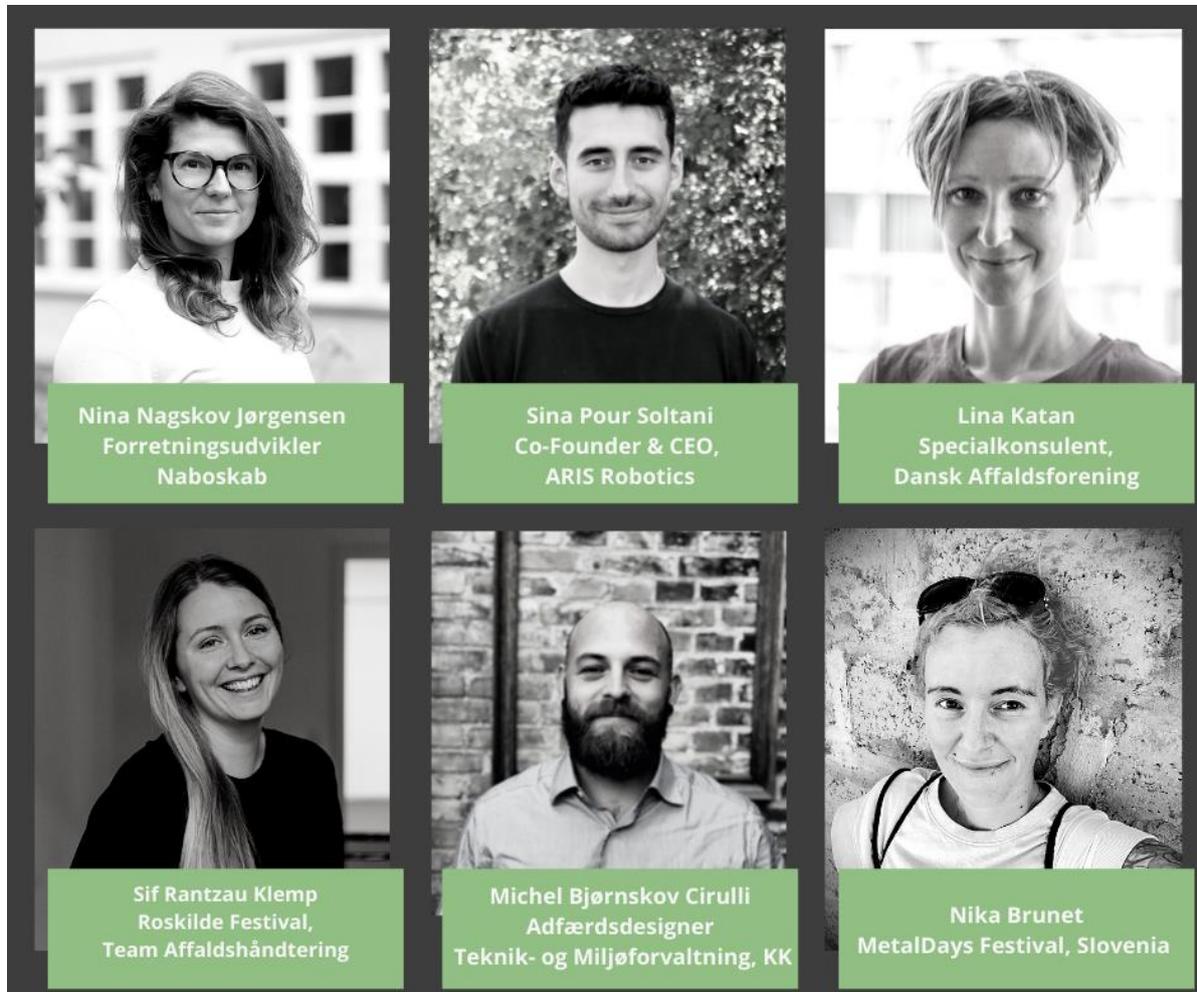
My areas of expertise: Consumer behavior, waste behavior, citizen involvement, dissemination, co-creation. I am a special consultant in the Danish Waste Association. Here I have a special focus on citizen involvement and knowledge development as well as the development of both internal and external dissemination activities and relationships.

I am doing a PhD in collaboration with Aalborg University on waste sorting in the citizens' domestic everyday life. I am among other things an educated sociologist from the University of Copenhagen and has extensive experience in facilitating dialogue, co-creative knowledge development and design of innovative and inclusive communication formats.

- **Nina Nagskov Jørgensen, Business developer, Naboskab**

We are a green consulting firm that specializes in understanding and changing behavior. We help municipalities, companies, and organizations to create green transformation by making people and behavior part of the decision basis. We specialize in using anthropological methods to gain insight into human barriers and motives for sorting waste, sharing, recycling, exchanging, aligning, etc. We translate

these insights into concrete advice on the performance of pilot tests and implementation of green solutions, sustainable development, strategies, campaigns, products, and services. Our common thread is green, and therefore we only perform tasks that contribute to a more sustainable world.



When do you meet the mentors?

You will get 2x25 minutes visits from mentors in the period 10.15-11.50 Saturday.

Your team will have the option send a prioritized wish list of the 3 mentors you will prefer to meet. We cannot promise that you will meet the mentors you wish for, but we will do our very best that at least one from your wish list, will visit you.

How to prepare for the meeting with your mentor

Talk about whether there is something specific that you would like your mentors to focus on.

It could be topics such as:

- Do you need inspiration to be able to move forward with your solution?
- Do you need inspiration to optimize your solution?
- Do you need new perspectives?
- Do you want someone to challenge your solution: Is it sustainable? Does it create actual change? Does it create value for a user or collaboration partner? Does the idea have downsides; you have not yet realized?
- Are there already ideas like yours, that you can learn from?
- What should you investigate or consider as you move forward with your idea?

Tools: Idea and concept development & realization

There are several ways you can start developing your idea.

You could do a SWOT analysis considering your idea's Strengths, Weaknesses, Opportunities and Threats. You could also map out the different stakeholders and users – and then analyze their needs. Of course, you could also do something completely different to develop your idea.

This is the part in the process that allows more time to do research, to plan where the project is going, and maybe distribute some tasks among the team members.

You can find several useful tools for this part of the process here:

<https://innovationenglish.sites.ku.dk/metoder/>

You can tick a box – e.g. concept development on the left side – and the page will then only show tools specifically suited for work within that area.

You could also consider filling in the Sustainable Business model Canvas (find it below). Even though you are not going for an idea that have startup potential, the model can support you to consider various factors and how it contributes with value to stakeholders and to society.

The Sustainable Business Model Canvas

Project: _____ Owner: _____ Version: _____

| Positive Impact (Maximise) <small>What are positive 2nd and 3rd order effects of your product on planet, society, the economy or your organisation (e.g. brand)? How can these effects be maximised along the complete product life cycle? You can use the left side of the Threebilly Sustainability Impact Canvas to generate the input for this section</small> | | Negative Impact (Minimise) <small>What are negative 1st, 2nd and 3rd order effects, and how can these be minimised? Is harmful waste generated that requires expensive disposal? Are there rebound effects or new technological risks? You can use the right side of the Threebilly Sustainability Impact Canvas to generate the input for this section</small> | |
|--|---|--|---|
| Sustainable Partners <small>Who are possible partners in becoming more sustainable? How can we make the whole supply chain sustainable, transparent and circular? Can we cooperate with partners from other industries to form an industrial symbiosis? Can we shape anticipated environmental regulations by partnering and cooperating with relevant regulatory bodies?</small> | Sustainable Value Creation <small>Which are our key activities? How can we adjust them (e.g. manufacturing) to ensure sustainability? Which enabling sustainable technologies can be used?</small> | Sustainable Value Proposition <small>Which problem do we solve, which value do we create? What are function & form of our product or service? Can we solve our customers' problems more sustainably? Can we transform sustainability into customer value? Is ownership necessary or is the product as a service model applicable? Can we extend the product life cycle?</small> | Sustainable Customer Relation <small>Which customer relationships satisfy customer expectations and are sustainable? How can we make current relationships more sustainable?</small> |
| | Sustainable Tech & Resources <small>Which 1) natural, 2) energy and 3) technical resources do we need? Can we substitute any for more sustainable resources?</small> | | Responsible customers <small>Who are our customers? How can we enable them to act sustainably? Which target customers may help to promote our sustainable solution?</small> |
| | | | Sust. Channels <small>How can we make our distribution channel more sustainable and circular? How do we best communicate the sustainable aspect of our product / service?</small> |
| | | | End of Life <small>What happens at the end of the product life cycle? Can the product be profitably recycled, upcycled, reused, refurbished?</small> |
| Cost Structure & Additional Costs <small>What are the required costs and investments for my endeavour? Which resources / activities are the least sustainable? Do sustainable alternatives exist? Is switching economically reasonable?</small> | | Subsidisation <small>Do tax bonuses & subsidies or 3rd party funding exist for my endeavour?</small> | |
| | | Revenue & Sustainability Premium <small>Which are existing and possible revenue sources? Are customers willing to pay a premium for sustainability? Can we create a unique advantage due to sustainable proposition elements? Do price structures exist that incentivize sustainable customer behaviour?</small> | |

Threebilly
threebilly.com

View the [instructions](#) for this canvas and download our free [Sustainable Business Model Innovation Game](#)

The Sustainable Business Model Canvas by Threebilly is licensed under a [Creative Commons Attribution-ShareAlike 4.0 International License](#)



Test your idea on former Roskilde Festival participants

15.30-16.30

Your team will have the chance to speed date former Roskilde Festival Participants. This is your chance to practice your pitch and to test your idea on a real-life audience that will give you feedback from their personal point of view.

You can also ask them specific angles or experiences from the festival you are interested in knowing more about.

You will have 6 minutes with the test team. So use them wisely 😊

Practical information about the final presentation

The presentations will begin at 10.00 on Sunday.

Each team will have five minutes to present, after which the panel of judges can ask two short questions.

After the first question, someone from your team will provide an answer – so please discuss in advance, if one or several specific team members will be answering the questions. Then, the second question will be asked, and your team will answer. Please remember to keep the answers short, as we have a limited amount of time for the presentations.

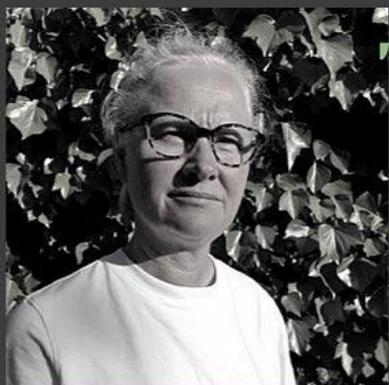
You can utilize a PowerPoint presentation, that you must send the day before by 21.00 to info@actory.dk. You can also use other kinds of visual presentation if you prefer.

We will draw the order in which the teams are presenting, but if you prefer to present at a certain time, Let us know by Saturday evening.

The panel of judges will assess your solution based on the following five criteria, all counting equally:

- 1. Sustainability:** To what extent does the solution help create sustainable change?
- 2. Height of innovation:** To what extent has the group created a creative and innovative solution in relation to what already exists?
- 3. Creating Value:** To what extent is value created for the target group of the problem?
- 4. Feasibility:** Is the implementation of the solution realistic? How likely is it that the solution will exist within a year?
- 5. Communication & Pitch:** Is the presentation well-articulated and precise? Does it convey the essence of the solution?

PANEL OF JUDGES



Anette Sejersen
Teamleder Udvikling
Affaldshåndtering RF &
Vestforbrændingen

They can't
wait to
hear your
ideas



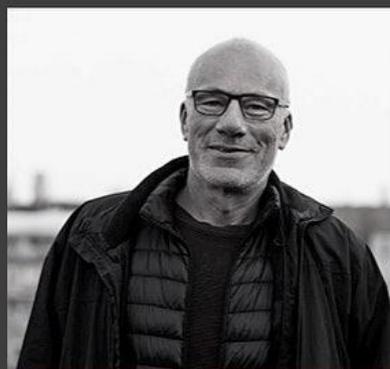
Charlotte Mathiesen
Designer
DIF Udvikling



Sif Rantzau Klemp
Roskilde Festival,
Team Affaldshåndtering



Michel Bjørnskov Cirulli
Adfærdsdesigner
Teknik- og Miljøforvaltning, KK



Lars Kristensen , Fagkoordinator
for bæredygtighed, energi og
ressourcer
SCIENCE Campus Service

How can you take your idea beyond the challenge?

Did you enjoy working on the case? Was your idea worth continuing to work on? Or did you simply just enjoy the collaboration within your team so much that you can't let the other team members go?

After the challenge, you will have several options to continue working on your solution, with or without your teammates – or to try out other sustainable projects.

Are you interested in applying for Roskilde Festival Circular Laboratory and get your idea tested at Roskilde Festival 2022? You will receive information on email the week after the challenge about how you can apply.

ACTORY – Space for sustainable ideas, small and large innovations and committed students.

You can get support from Actory to develop your idea even further. We meet up with you every 2-3 weeks for sparring and make sure that your project is in continuous progress. We are also able to connect you to the partners from Copenhagen Sustainability Challenge or other partners that are relevant for your project.

Contact Ellen-Margrethe Dahl-Gren at info@actory.dk, and we will discuss your options.